

# ABSTRACT

The invention provides systems and methods for interconnecting circuit devices, wherein decoupling capacitors are disposed on a substrate and an interconnect layer having a pattern of circuit connections is formed by a deposition process over the capacitors thereby embedding the decoupling capacitors within the interconnect layer. Circuit devices can be mounted to the surface of the deposited interconnect layer at locations that minimize, or substantially minimize, the interconnect length between the chip device and the decoupling capacitors for that circuit device.

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